

REMARKS**OVERVIEW**

Claims 1-3, 7-12, 16-18, 20, 22-25, and 30 are pending in this application. This response accompanies a Request for Continued Examination. An Amendment After Final was filed but not entered. The present amendment cancels claims 4, 5, 6, 13, 15, and 21. The present Amendment amends claims 1, 7, 8, 9, 16, 17, 18, 24, and 25. The present amendment adds new claim 30. The present response is an earnest effort to place all claims in proper form for allowance. Reconsideration and passage to issuance are respectfully requested.

CLAIM AMENDMENTS

Claims 1, 7, 8, 9, 16, 17, 18, 24 and 25 have been amended. All these claims now require that the encapsulant layer be glass frit. This subject matter was previously claimed in dependent claims (i.e. claim 6, claim 15, claim 21). These dependent claims have therefore been cancelled.

NEW CLAIM 30

Claim 30 is new. It is similar to claim 1 but does not include a particular type of encapsulant or type of barrier, therefore it is broader. In addition, it describes the structure of the end caps and the encapsulant in a different manner and does not include the "without adhesive" limitation.

REMAINING ISSUES UNDER 35 U.S.C. § 103

Claims 1-2, 4-5, 7-11, 13-14, 16-17 and 24-25 have been rejected under 35 U.S.C. § 103 as being unpatentable over WO99/53505 to Chiang et al in view of Abe et al. The Examiner

indicates that Chiang discloses the claimed invention except for the barrier made of nickel. The Applicant respectfully disagrees. For example, what is it that the Examiner considers to be the "substrate" for each film resistor? The Examiner indicates that the substrates are considered to be element 55 (Office Action, page 3, first line). The element 55 in Chiang is actually a dielectric layer 55 (see page 14). Claim 1 requires "that both the first and second film resistor have (a) a substrate with a top surface, a bottom surface, a first end surface, and an opposing end surface, a first side surface and an opposing side surface (b) a film resistive element on the top surface of each substrate." This is not disclosed in Chiang. The Examiner has indicated that the film resistive element of Chiang should be considered to be the PTC element 17. If the PTC element 17 is to be the resistive element and the dielectric layer 55 to be the substrate, the PTC element is not "on the top surface of each substrate." This can be seen, for example, in Figure 6. Therefore, it is respectfully submitted that this rejection should be withdrawn. Therefore, claim 1 is allowable on that basis. In addition, claim 1 now requires "glass frit" which has been incorporated from now cancelled claim 6. It is respectfully submitted that because claim 1 now requires "glass frit" and glass frit is not disclosed in either Chiang nor Abe that this rejection should be withdrawn on that basis as well.

As claim 2 depends from claim 1, it is respectfully submitted that this rejection should be withdrawn. As claims 4 and 5 have been cancelled, these rejections are moot. As claims 7 and 8 also depend from claim 1, it is respectfully submitted that this rejections should also be withdrawn.

With respect to claim 9, claim 9 now incorporates the "glass frit" limitation from claim 15, therefore it is respectfully submitted that this rejection should be withdrawn on that basis. In addition, the Applicant respectfully submits that Chiang has been misapplied by the Examiner

with respect to the limitation of the requirement of a substrate and a film resistive element on the top surface of each substrate. Therefore, it is respectfully submitted that these rejections should be withdrawn on this independent basis as well. As claims 10-11 depend from claim 9, it is respectfully submitted that these rejections should be withdrawn. Claims 13 and 14 are cancelled and therefore it is respectfully requested that these rejections are moot. Claims 16 and 17 depend from claim 9, therefore it is respectfully submitted that these rejections should be withdrawn.

Claim 18 has been amended to include the "glass frit" found in now cancelled claim 21. Therefore, it is respectfully submitted that this rejection should be withdrawn on that basis. As claims 24 and 25 depend on claim 18, it is respectfully submitted that these rejections should also be withdrawn.

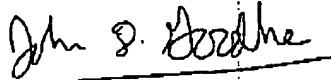
Claims 1-13, 15-18, and 23-25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 6283301 in view of Hashimoto, or as an alternative, further in view of Claypool. The Examiner recognizes that the '301 reference does not disclose a nickel barrier or film resistors stacked together with glass between (Office Action, p. 3, numbered paragraph 5).

The Examiner relies upon Hashimoto to disclose a glass layer, referring to the glass layer 94 of Hashimoto which is a protection layer made from boro-silicate lead glass or an epoxy system resin (col. 14, lines 7-9). The Examiner does not, however, provide any motivation or suggestion to combine the glass layer of Hashimoto with the device of the '301 reference. It is further noted that one of the advantages achieved by the glass layer in the present invention is to insulate the power chip resistor without concern for long term instability such as may be caused by resistive heating (paragraph 27). Neither Hashimoto nor the '301 reference disclose that they are concerned with a power chip resistor, let alone providing a glass frit layer that provides for insulating the layers.

Therefore, it is respectfully submitted that all claims are in proper form for immediate allowance. Reconsideration and passage to allowance is respectfully requested.

This Amendment accompanies a Request for Continued Examination and a Request for an extension of time. Therefore, please charge these fees to Deposit Account No. 26-0084. No other fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Respectfully submitted,



JOHN D. GOODHUE, Reg. No. 47,603
MCKEE, VOORHEES & SEASE, P.L.C.
801 Grand Avenue, Suite 3200
Des Moines, Iowa 50309-2721
Phone No: (515) 288-3667
Fax No: (515) 288-1338
CUSTOMER NO: 22885

Attorneys of Record

- bja -

RECEIVED
CENTRAL FAX CENTER
OCT 23 2003

OFFICIAL

BEST AVAILABLE COPY